

REMARKS/ARGUMENTS

Upon entry of this amendment, claims 4, 5, 6, 8 and 13 will be canceled without prejudice or disclaimer of the subject matter recited therein, claims 1, 3, 7, 9, 10 and 11 will be amended, and claims 14-17 will be added, whereby claims 1-3, 7, 9-12 and 14-17 will be pending. Claims 1, 14 and 16 are independent claims.

Applicants respectfully submit that the amendments herein are in conformance with the originally filed disclosure and do not constitute new matter. Thus, the Examiner's attention is directed, for example, to the original claims and pages 4-9 in describing the various embodiments of Applicants' invention. With respect to claim 16, Applicants direct the Examiner's attention to Figs. 3A and 3B which illustrate the membrane 17a as not extending past an outer surface of the reaction container, and the specification has being amended to explicitly include this language therein. Thus, the specification is being amended to explicitly include the language of the claims and to include amendments in response to the objection to the specification.

Reconsideration and allowance of the application are respectfully requested.

Consideration Of Information Disclosure Statements

Applicants express appreciation for the inclusion with the Office Action of copies of the initialed Forms PTO-1449, whereby the Examiner's consideration of the Information Disclosure Statement, filed May 7, 2001 (resubmitted April 26, 2002) and the Supplemental Information Disclosure Statement, filed May 14, 2003, is of record.

Claim Of Priority

The Office Action acknowledges the claim of foreign priority as well as receipt of the certified copy of the priority application. Applicants note that the cover page of the Office Action should, in fact, indicate that the certified copy of the priority document has been received in this national stage application.

Upon review of the Official Filing Receipt, it is noted that the filing date of the priority application is incorrectly listed as 06/08/1998 (June 8, 1998), when, in fact, the filing date of the priority application should be listed as August 6, 1998. Accordingly, it is respectfully requested that the record be corrected to include the correct filing date of the priority application, and that a corrected Official Filing Receipt be forwarded to Applicants.

Formal Drawings

Applicants note that the Office Action indicates that the drawings filed April 26, 2002 (apparently February 6, 2001) are accepted.

Response To Indication Of Error In The Specification

In response to the indication of error in the specification, Applicants have amended the specification to change "18a" to ---17a---. Accordingly, this ground of objection should be withdrawn.

Response To Objections To The Claims

In response to the objections to the claims, Applicants respectfully submit the following.

By the amendment herein, the claims have been amended in the manner suggested by the Examiner to even more clearly present their recitations. Moreover, claim 13 has been canceled without prejudice or disclaimer of the subject matter recited therein. Applicants respectfully submit that the amendments to the claims should be considered to be cosmetic, and no estoppel should be associated therewith.

Response To Rejection Under 35 U.S.C. 112, Second Paragraph

In response to the rejection of claims 1-13 under 35 U.S.C. 112, second paragraph, Applicants respectfully submits the following.

Applicants respectfully submit that the claims pending prior to the present amendment define Applicants' invention in a manner that one having ordinary skill in the art would be able to understand the metes and bounds of Applicants' invention. However, in an attempt to advance prosecution of the application, the claims have been amended herein to even more clearly point out Applicants' invention.

In view of the above, the 35 U.S.C. 112, second rejection, should be withdrawn. If the Examiner deems that there are any changes to the claims that the Examiner deems would be beneficial to even more clearly define Applicants' invention, the Examiner is respectfully requested to contact the undersigned by telephone.

Response To Indication Of Allowable Subject Matter And Rejections Based Upon Prior Art

Applicants express appreciation for the indication in the Office Action that claims 8-11 would be allowable if rewritten or amended to overcome the rejection under 35 U.S.C. 112, second paragraph. Moreover, Applicants note that the claims are rejected under the following bases.

(a) Claims 1, 2 and 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Schisselbauer, U.S. Patent No. 4,968,567.

(b) Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Merz, U.S. Patent No. 4,929,508.

(c) Claims 1, 2 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Hausler et al., U.S. Patent No. 3,839,092.

(d) Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schisselbauer, U.S. Patent No. 4,968,567.

(e) Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hausler, U.S. Patent No. 3,839,092, in view of Linden, Handbook of Batteries (pages 17.8-17.9)

In response, Applicants note that claim 1 has been amended to substantially include the subject matter of claim 8 which has been indicated to include allowable subject matter. Accordingly, claim 1 should be in condition for allowance, and each of the claims depending directly or indirectly upon claim 1, i.e., claims 2, 3, 7 and 9-12 should be in condition for allowance.

Still further, Applicants note that claims 14-17 have been added, and that these claims should also be indicated to be allowable over the prior art of record.

In particular, independent claim 14 is directed to a reserve battery cell, comprising an electrolyte container for containing electrolyte; a reaction container including a first membrane formed on a region of a wall separating the electrolyte container from the reaction container and a second membrane formed on a surface of the reaction container facing the first membrane; and a member provided on an external surface of the reaction container for breaking the first and the second membranes upon reception of an external impact to activate the battery cell. In contrast, to the reserve battery cell recited in Applicants' claim 14, none of the prior art utilized in the rejections, i.e., none of Schisselbauer, Merz or Hausler teaches or suggest a reserve battery cell including, amongst other features recited in Applicants' claim, a reaction container including a first membrane formed on a region of a wall separating the electrolyte container from the reaction container and a second membrane formed on a surface of the reaction container facing the first membrane, and a member provided on an external surface of the reaction container for breaking the first and the second membranes upon reception of an external impact to activate the battery cell.

Still further, dependent claim 15 further patentably defines that the first membrane and the second membrane have a thickness of less than 20 μ m and the member is composed of a material selected from the group consisting of silicon, ceramic, glass, nickel coated with a nonconductive material, copper coated with a nonconductive material, and aluminum coated with a nonconductive material.

Independent claim 16 is directed to a reserve battery cell, comprising an electrolyte container for containing electrolyte; a reaction container including a first membrane formed on a region of a wall separating the electrolyte container from the reaction container and a second, flexible membrane formed on a surface of the reaction container facing the first membrane and not extending past an outer surface of the reaction container; and a member protruding toward the first membrane from an inner wall of the second membrane, said member being positioned within the reaction container and capable of breaking the first membrane so as to lead the electrolyte into the reaction container for generating an electromotive force.

In contrast to the reserve battery cell recited in Applicants' claim 16, none of the prior art utilized in the rejections, i.e., none of Schisselbauer, Merz or Hausler, teaches or suggest, amongst other features recited in Applicants' claim 16, a reserve battery cell including a reaction container including a first membrane formed on a region of a wall separating the electrolyte container from the reaction container and a second, flexible membrane formed on a surface of the reaction container facing the first membrane and not extending past an outer surface of the reaction container; and a member protruding toward the first membrane from an inner wall of the second membrane, said member being positioned within the reaction container and capable of breaking the first membrane so as to lead the electrolyte into the reaction container for generating an electromotive force. For example, Merz does not disclose a reaction container including first and second membranes; and Schisselbauer does not teach or suggest at least a second, flexible membrane formed on a surface of the reaction container facing the first membrane and not extending past an outer surface of the reaction container.

Still further, dependent claim 17 further patentably defines that the first membrane and the second membrane have a thickness of less than 20 μ m and the member is composed of a material selected from the group consisting of silicon, ceramic, glass, nickel coated with a nonconductive material, copper coated with a nonconductive material, and aluminum coated with a nonconductive material.

For the reasons set forth above, the rejections of record should be withdrawn, and each of the pending claims should be indicated to be allowable. In this regard, Applicants note that the reasons for allowance set forth in the Office Action, and note that the reasons are not limited to those set forth by the Examiner. In this regard, each of the pending claims is allowable over the prior art of record for the combination of features recited in each of the pending claims.

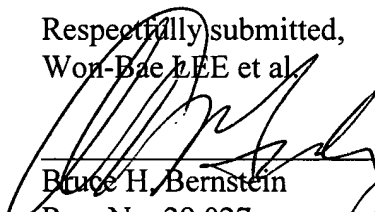
CONCLUSION

In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw the objections and rejections of record, and allow each of the pending claims.

Applicant therefore respectfully requests that an early indication of allowance of the application be indicated by the mailing of the Notices of Allowance and Allowability.

Should the Examiner have any questions regarding this application, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,
Won-Bae LEE et al.


Bruce H. Bernstein
Reg. No. 29,027

Ag No 33,094

June 14, 2004
GREENBLUM & BERNSTEIN, P.L.C.
1950 Roland Clarke Place
Reston, VA 20191
(703) 716-1191